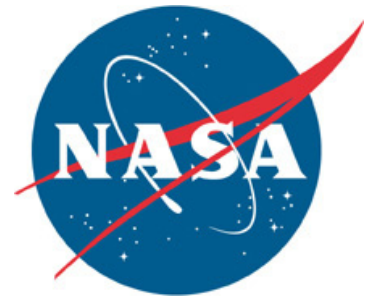


# Spaceport News

John F. Kennedy Space Center - America's gateway to the universe

[www.nasa.gov/centers/kennedy/news/snews/spnews\\_toc.html](http://www.nasa.gov/centers/kennedy/news/snews/spnews_toc.html)



## NASA marks decade on ISS

By Linda Herridge  
Spaceport News

What a difference a decade makes. On the 10-year anniversary of continuous human presence aboard the International Space Station, Nov. 2, NASA Administrator Charlie Bolden commemorated the milestone by calling the six Expedition 25 crew members currently living and working on the orbiting laboratory.

Bolden spoke to Commander Doug Wheelock and his fellow astronauts Scott Kelly and Shannon Walker, and Russian cosmonauts Fyodor Yurchikhin, Alexander Kaleri and Oleg Skripochka, during a news conference that was broadcast live on NASA TV.

"This global milestone is tremendously significant, both for NASA and our partners," Bolden said. "It recognizes the success of an amazing feat of engineering and a magnificent leap forward in the story of human achievement."

The first crew, Expedition 1, launched to the station aboard a Russian Soyuz Rocket from the Baikonur Cosmodrome in Kazakhstan on Oct. 31, 2000. Two days later, the Soyuz docked to the Zvezda Service Module and U.S. astronaut Bill Shepherd, and Russian Cosmonauts Yuri Gidzenko and Sergei Krikalev boarded the station.



NASA

NASA astronauts Doug Wheelock (background), Expedition 25 commander; and Scott Kelly, flight engineer, are pictured near fresh fruit floating freely in the Unity node of the International Space Station.

On Nov. 2 of this year, the station completed 57,361 orbits of Earth and traveled about 1.5 billion miles. Men and women from 15 nations have lived and worked together on the station and more than 600 different research and technology experiments have been conducted. On Oct. 25, the station set a record

for being the longest continuously inhabited spacecraft. "As we look forward to the next 10 years, taking us through 2020, the space station will serve many roles," said Mike Suffredini, ISS program manager. "With its permanent human presence, it will serve as a foothold

for being the longest continuously inhabited spacecraft.

"As we look forward to the next 10 years, taking us through 2020, the space station will serve many roles," said Mike Suffredini, ISS program manager. "With its permanent human presence, it will serve as a foothold

See ISS, Page 2



### Discovery, STS-133 NET Nov. 30 launch

NASA has postponed the launch of space shuttle Discovery to no earlier than 4:02 a.m. EST on Nov. 30. The delay will allow engineers and technicians time to diagnose and repair a hydrogen gas leak detected while filling the external fuel tank Nov. 5. They also will fix a foam crack on the external fuel tank's liquid oxygen intertank flange. The crack was discovered during de-tanking operations.

"We always place safety first," said NASA Associate Administrator for Space Operations Bill Gerstenmaier. "It is essential we repair this hardware before we fly the mission, and we will take the time to properly understand and fix the failure before we launch."

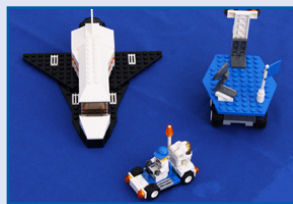
### Inside this issue . . .

#### What's going up?



Page 2

#### LEGOs spark learning



Page 3

#### Future of Launch Pad 39B



Page 6

#### Heritage: Workplace has become safer



Page 7

# Medallion honoring Capt. James Cook going up on STS-133

By Steven Siceloff  
*Spaceport News*

Discovery's final voyage into orbit will carry symbols reminiscent of the great voyages of other ships by the same name.

A medallion from the Royal Society honoring legendary explorer Capt. James Cook will be carried aboard the space shuttle during STS-133. Cook's third expedition of the vast Pacific Ocean included a ship named HMS Discovery, one of the vessels shuttle Discovery is named after.

The astronauts flying Discovery during the STS-133 mission to the International Space Station

don't have to be told of its significance.

"I don't think you can take a final voyage of a ship of exploration and not take some moments to celebrate its history," said Mission Specialist Michael Barratt. "And I think many people know that our ship, Discovery, which is a ship of exploration, was named after several predecessor ships also named Discovery, all ships of exploration."

After all, Discovery has gone into orbit more than any other shuttle, or any other spacecraft for that matter. Early in its career, Discovery provided a base so astronauts could retrieve satellites, test new technologies and conduct

two-week-long experiments in microgravity. NASA turned twice to Discovery for Return to Flight missions after accidents with shuttles Challenger and Columbia, and it launched the agency's landmark observatory, the Hubble Space Telescope.

In the last several years, Discovery has helped shuttles Atlantis and Endeavour complete the International Space Station.

Astronauts routinely carry into space mementos from schools, military units and tokens from institutions in the communities they grew up in or live in. After they come back, the crew members typically present them to the sponsoring organization or person in

hopes that the item will inspire or give hope to future explorers.

In the case of the STS-133 crew, such items include a medallion from the U.S. Air Force Institute of Technology. STS-133 Commander Steve Lindsey graduated from the institute before becoming an astronaut.

Also flying on Discovery will be two small LEGO space shuttles, each with a tiny toy astronaut, to help celebrate a new educational partnership between the toy-building brick maker and NASA.

Some of the items can be off-beat. For instance, a small action figure of William Shakespeare, from

the University of Texas English Department, will be a passenger on Discovery. As will a plush giraffe, the mascot of the Hermann children's hospital at the University of Texas.

While many of the items Discovery astronauts are carrying are one-of-a-kind, there also are hundreds of American and Discovery flags, mission patches and space shuttle bookmarks. As with the other commemoratives, the larger collections are meant to inspire and reward.

"Again, you can not, not celebrate the history and the heritage of this ship and we plan to continue that certainly after we land," Barratt said.

## From ISS, Page 1

for long-term exploration into space, being an integral part of testing human endurance, equipment reliability and processes essential for space exploration."

On Oct. 27, NASA marked the milestone with a series of roundtable discussions at Kennedy Space Center, Johnson Space Center, Marshall Spaceflight Center and NASA Headquarters.

Kennedy panelists were Center Director Bob Cabana, ISS and Spacecraft Processing Director Josie Burnett, ISS, Spacecraft Processing Deputy Director Bill Dowdell and Director of The Boeing Company's Program Management Development David Bethay.

The four reminisced about the early days of the program, working with Boeing and international partners, what it took to get ready for space station hardware at Kennedy, and the successes and challenges along the way.

"The hardware was a challenge," Cabana said.

"Once we got going, we watched the Space Station Processing Facility fill up with hardware to the point where we couldn't even keep it all in there. We had to use the O&C high bay to stack truss structures. It was truly amazing.

"When we sat down with a technical issue,

language wasn't a barrier. We had a common language to get things done," Cabana said.

Burnett said one of the key elements in those first seven flights, was the Canadian robotic arm, the SSRMS. "It was the only international element at the time that was on the criti-

cal path for us succeeding to establishing that initial phase for the space station," Burnett said.

"Everybody was after that common goal, what do we need to do to make it work," Burnett added. "Some of the best memories I have in my career are the early days of station."

"As we enter the station's second decade, our path forward will take us deeper into space and expand humanity's potential farther," Bolden said. "I congratulate the entire station team and the thousands of people worldwide who have helped us reach this anniversary."



Kennedy Space Center Director Bob Cabana, left, International Space Station and Spacecraft Processing Director Josie Burnett, International Space Station and Spacecraft Processing Deputy Director Bill Dowdell and Director of The Boeing Company's Program Management Development David Bethay help mark the 10-year milestone of human life, work and research aboard the International Space Station with a panel discussion that aired on NASA TV on Oct. 27. Johnson Space Center in Houston, Marshall Space Flight Center in Huntsville, Ala., and NASA Headquarters in Washington also hosted panel discussions for the milestone celebration.

NASA

# NASA, LEGO join forces for space, math education

By Steven Siceloff  
Spaceport News

Astronauts on board the International Space Station will build small model spacecraft and working objects in orbit and share the experience with schoolchildren watching on Earth.

The students will build some of the same things in their own classrooms and see firsthand how differently objects behave in space, where there is practically no gravity, compared to the familiar world of Earth.

The project is one of the first steps in a three-year partnership between NASA and the Denmark-based The LEGO Group, maker of the ubiquitous plastic bricks that have been covering children's playroom floors for decades.

"We're going to use the classroom of space, the International Space Station, to inspire the next generation," said Leland Melvin, associate administrator for NASA Education and a former astronaut. Melvin flew two shuttle flights, spending time at the station during both missions. He joined LEGO officials Nov. 1 at Kennedy Space Center in Florida to announce the partnership.

Two small LEGO shuttles are packed inside Discovery for the STS-133 launch to promote the new

partnership. They are expected to stay in their lockers, but astronauts may pull them out during the mission if they have time, said Debbie Biggs, an education specialist for International Space Station National Lab Education Projects.

NASA's fundamental goal is to use the partnership to inspire children to learn about science, technical fields, engineering and math. Known as STEM education, the focus has been a priority for the agency throughout this year's "Summer of Innovation."

Stephan Turnipseed, president of LEGO Education North America, said LEGO is the right partner because the bricks encourage kids to develop their inner engineer.

"Children think with their hands," Turnipseed said.

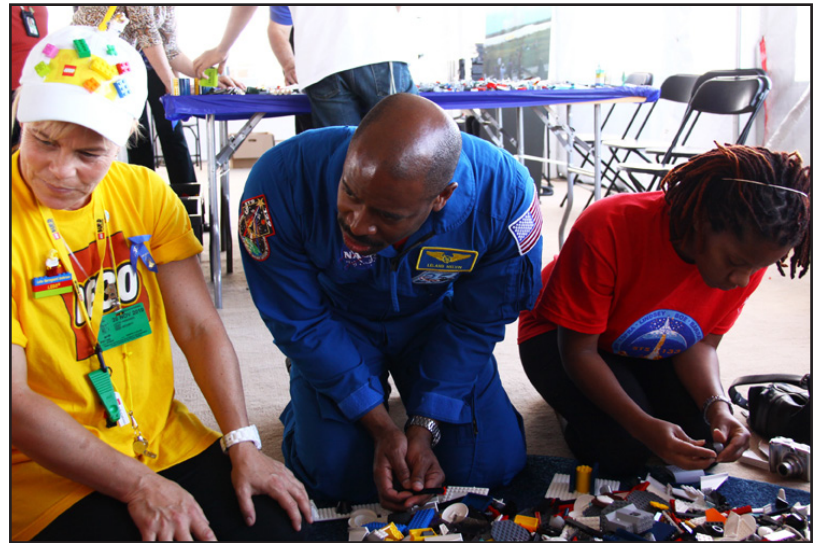
Astronaut Dan Tani, a veteran shuttle flier and station resident, agreed.

"LEGO taught me a lot of

things about how things are built, what makes sense in terms of structure," said Tani, who brought his daughter to the LEGO activity tent. "I don't think I'd have been as good an engineer if it had not been for things like LEGO and construction kinds of toys."

There were plenty of children who thought so, too. Visiting LEGO's activity tent at one of the launch viewing sites at Kennedy on Nov. 3, kids took to 1 ton of bricks and specialized pieces with barely any instructions. They quickly constructed spacecraft of all shapes, some small with launch facilities, others large replicas of the space shuttle. Some made a run at imagining colonies on the moon or Mars.

"You can make anything you want," said Tanner, a nine-year-old who has been building



NASA/Jack Pfaller

Leland Melvin, center, NASA's associate administrator for Education, listens as children and adults build their vision of the future with LEGO bricks, marking the beginning of a three-year Space Act Agreement meant to spark interest in science, technology, engineering and mathematics.

LEGO sets for years.

Melvin and Turnipseed were delighted with the kids' enthusiasm. They even joined in the building.

"This is showing what happens when we give kids a challenge,

give them a tool that allows them to express their response to that challenge, their ideas," Turnipseed said.

LEGO and NASA still are working on lesson plans for students that will coincide with the work the astronauts perform in space, Biggs said. Some of the plans may

even have the students challenge the astronaut to see who can build something quicker.

Astronaut Cady Coleman, in training for a mission to the International Space Station later this year, is slated to be the first astronaut enlisted to build LEGO objects in space.

Space shuttle Endeavour will carry nine specialized kits to the station during the STS-134 mission. Working with them inside a see-through glove box so the small pieces don't get lost in the station,

Coleman will assemble LEGO blocks into models and working machines.

She already is practicing with some of the kits with her son and even picking up tips from other kids.

Melvin said the LEGO partnership is crucial for NASA's education mission because the blocks invite children to think, basically, like engineers. After all, building with the toys means deciding what kind of shape to make, what combination of blocks together make that shape the best and what can the thing do when it's finished. They also come up with designs that will be stronger depending on how the bricks are aligned with each other.

LEGO also is releasing four kits to the public based on NASA spacecraft and missions. Rather than being a part of a line of science fiction or fantasy toy kits, though, the NASA sets are being marketed as part of the company's "CITY" line, which calls on kids to build things that are part of everyday life.

"We believe that space, that space exploration, the fact that we have satellites in the air, it is a part of everyday life," Turnipseed said. "The children get it, they understand the importance of what we're doing."

"Space is permeated into everything we do," Melvin said.

*"We're going to use the classroom of space, the International Space Station, to inspire the next generation . . . space is permeated into everything we do."*

**Leland Melvin,**  
NASA's associate  
administrator for Education



NASA/Jack Pfaller

A student shares his vision of the future with LEGO bricks as NASA and LEGO began a three-year partnership to inspire students.

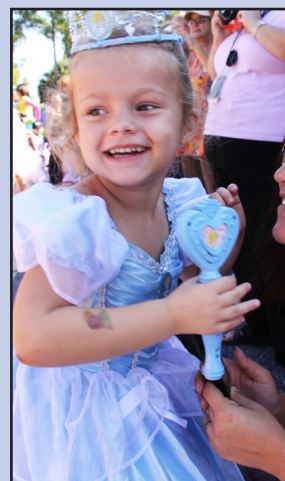
# Scenes Around Kennedy Space Center



## Child Development Center hosts costume parade

The Kennedy Space Center Child Development Center hosted its annual Fall Festival on Oct. 29. Activities included a costume parade and pumpkin patch photographs. Parents and younger children, who dressed up as well, watched as preschoolers in costumes marched around the playground.

Photos by NASA/Troy Cryder



The 600-ton Test Fixture outside the Launch Equipment Test Facility conducts a 500,000-pound pull test of a bridge crane lifting element Oct. 27, which is used to lift space shuttles in the Vehicle Assembly Building at Kennedy. The fixture proofload tests, in tension and compression, a variety of ground support equipment, including slings, lifting beams and other critical lifting hardware that require periodic proofloading.



NASA/Jack Pfaller

The Alpha Magnetic Spectrometer-2 (AMS) sits in its cargo element work stand Nov. 4, where more processing will take place in Kennedy's Space Station Processing Facility. AMS is designed to operate as an external experiment on the International Space Station. It will use the unique environment of space to study the universe and its origin by searching for dark matter. AMS will fly to the station aboard space shuttle Endeavour's STS-134 mission targeted to launch Feb. 27, 2011.



Reader-submitted photo

Members of Kennedy's Education Directorate gather in front of the center's headquarters building to show their support for breast cancer awareness by wearing pink on Oct. 15.

# Launch Pad 39B morphing to make more memories

By Rebecca Regan  
Spaceport News

As the starting line for human expeditions to the moon, the Russian Mir space station, NASA's Hubble Space Telescope, the International Space Station and two Return to Flight missions for the Space Shuttle Program, the history of Kennedy Space Center's Launch Pad 39B is just beginning.

As most of the pad's huge steel structures come down piece by piece, it may seem as though its nearly 45-year-old career is coming to an end, but the pad's senior manager, Jose Perez-Morales, said it is going through a major metamorphosis to support a new set of launch vehicles.

"Most of the systems that we are installing out at pad B are ground systems," Perez-Morales told media on Nov. 1. "That means we can support basically any vehicle that will come to the pad on a mobile launcher, or our new mobile launcher."

The transformation includes the removal of the



NASA/Jack Pfaller

Rubble begins to build as the rotating service structure (RSS) on Launch Pad 39B is dismantled at Kennedy Space Center. Starting in 2009, the structure at the pad was no longer needed for NASA's Space Shuttle Program, so it is being restructured for future use. The new design will feature a "clean pad" for rockets to come with their own launcher, making it more versatile for a number of vehicles.

rotating service structure (RSS), fixed service structure (FSS) and weather protection system, which were added in the mid-70s to support the unique needs of the shuttle program. The demolition of those structures will happen gradually, though, because the company taking them down, LVI Environmental Services Inc., is prohibited from using explosives.

"We wanted to protect the concrete surface of the pad," Perez-Morales said. "So everything is being cut and brought down to the floor."

As a double-layer of protection, Perez-Morales said steel plates and large

wooden mats will protect the surface from falling debris.

Earlier this year, United Space Alliance and Abacus Technology Corp. stripped the pad of its electronic racks and about 1.3 million feet of cabling. Perez-Morales said the process to replace the archaic copper wiring with more-advanced fiber optic wires already has begun. The pad's iconic orbiter access arm and gaseous oxygen (GOX) vent arm have been acquired by Kennedy's visitor complex for future exhibits.

Current work includes the refurbishment of the liquid oxygen and liquid hydrogen storage tanks that reside on opposite sides of the pad perimeter.

"The work we're doing to the tanks will extend their operational lifetime by about 20 years," Perez-Morales said.

Three new lightning towers, constructed by Ivey's Construction Inc. of Merritt Island, Fla., that were in place for the Ares I-X flight test in October 2009 will remain. Perez-Morales said in the future each tower will be outfitted with four levels of weather monitoring systems as well as high-speed cameras to keep track of lightning strikes.

"The towers are about 600 feet tall and we designed them to support a vehicle as tall as the Vehicle Assembly

Building doors," Perez-Morales said. "If a launch vehicle can be processed and rolled out of the VAB, these towers can protect it on the pad."

Another possible visible addition to the pad will be a new emergency egress system, which Perez-Morales said resembles a roller coaster. Other work could include new brickwork in the pad's flame trench.

All of these changes are expected to support NASA's future expeditions, including commercial-developed vehicles that will take the space agency's astronauts to low Earth orbit and NASA-developed heavy-lift vehicles

that will take humankind to destinations farther than the moon.

Ed Mango, NASA's Space Transportation Planning Office director, was the Launch Director for Ares I-X and said he's confident Launch Pad 39B hasn't finished making history with the completion of that successful flight test.

"The next time we launch a new U.S.-built, human-rated spacecraft it will be led from right here at KSC," Mango said while standing on the crawlerway in front of pad B.

Mango compares the work being done at the pad and the planning stages of the Commercial Crew Development efforts that he is leading at Kennedy to a football analogy.

"For those that understand football, right now we are in the pre-season," Mango said. "Development stages will be the regular season, flight tests will be the playoffs and when we launch a NASA crew to the International Space Station . . . that'll be the Super Bowl."



NASA/Jim Grossmann

Jose Perez-Morales, NASA's Launch Pad 39B senior manager shares plans of the the transformation of Launch Pad 39B with news media at Kennedy Space Center. The transformation includes the removal of the rotating service structure (RSS) and fixed service structure (FSS), refurbishment of the liquid oxygen and liquid hydrogen tanks, and the upgrade of about 1.3 million feet of cable. The new lightning protection system, which was in place for the October 2009 launch of Ares I-X, will remain.



NASA/Jim Grossmann

Media learn about the future plans for Launch Pad 39B from Ed Mango, NASA's Space Transportation Planning Office director at Kennedy Space Center. If appropriations are provided for NASA's current Authorization Act, those plans would include a robust commercial space program with multiple customers, multiple providers and multiple systems that take Americans to the International Space Station and other low-Earth orbit destinations.

## Remembering Our Heritage

# Legacy of fallen workers is safer work place

By Kay Grinter  
Reference Librarian

**L**egacy of fallen workers is safer conditions across the agency and the nation

"It isn't what we don't know that gives us trouble, it's what we know that ain't so," said American humorist Will Rogers in his down-to-Earth fashion.

His common-sense interpretation of human behavior partially may explain the accident at Launch Pad 39A on the morning of March 19, 1981.

Launch of STS-1, the first space shuttle mission, was less than a month away. A countdown demonstration test was concluding at the pad. A gaseous nitrogen purge of shuttle Columbia's aft compartment, part of the test, was extended to determine whether nitrogen intruded into the crew cabin during the purge of the forward fuselage cavity area.

Collection of the new data was added to the test schedule just three days before.

NASA alum Joel Reynolds, Kennedy Space Center's safety division chief at the time of the accident, recalled, "We knew that the presence of gaseous nitrogen was dangerous, but none of us realized the gas was still flowing in the aft compartment after the countdown test was completed."

An all-clear to enter the shuttle was called at what originally would have been the end of the purge. Several employees of Rockwell International, the shuttle's prime contractor, entered Columbia's aft compartment and passed out. Others attempted a rescue and also were overcome. In the aftermath, three workers died.



for NASA

Space View Park is directly across the Indian River Lagoon from Launch Complex 39 at Kennedy Space Center. The park claims to be the first and only walk in the nation that honors America's astronauts as well as the men and women behind the scenes who helped America lead the world in space exploration. Here, the names of those who died on the job at Kennedy and Cape Canaveral Air Force Station in service to America's space program are engraved on one of the Apollo memorial's pylons.

The accident made national headlines.

"Throughout the whole country, steps were taken to ensure that a similar accident would not occur in any work-places where inert gasses were present or where pipes containing inert gasses passed," Reynolds said, "and at Kennedy, low-oxygen-level monitors were installed at the pad, in all processing facilities, and anywhere else that inert gasses were used and people might be working."

"Tighter control of pad access during and after hazardous operations was established, and a safety menu was built into the launch processing system

*"Whenever these things happen, which is very rarely . . . we do everything we can to learn and implement requirements so they never happen again."*

**Dave Barker,**  
chief of NASA's Institutional Safety  
and Mission Assurance Division  
at Kennedy Space Center

program on the computers in the firing rooms. Test conductors and engineers now could view the status of all hazardous systems on one screen."

On Oct. 19, a memorial was dedicated to those who died on the job at Kennedy and Cape Canaveral Air Force Station in service to America's space program. Sponsored by the U.S. Space Walk of Fame

Foundation and located in Space View Park on the Indian River in Titusville, Fla., their names are engraved on one of the Apollo memorial's pylons.

STS-1 pilot and Kennedy's former Center Director Bob Crippen officiated.

Today, Dave Barker is chief of NASA's Institutional Safety and Mission Assurance Division at Kennedy.

In the 20 years he has worked at Kennedy, there has been only one accident resulting in a fatality on Kennedy property: a roofer died from a fall from the top of a warehouse in the

Industrial Area in 2006.

"Whenever these things happen, which is very rarely," Barker explained, "we do everything we can to learn and implement requirements so they never happen again."

"A thorough investigation followed the roofer's death," Barker said. "It was a lengthy process. Teams worked on various aspects of the solution for months."

"Consultants were brought in to provide their particular perspectives. Every aspect of a recommendation was documented and an associated cost determined. Every organization involved had to concur or 'buy in' to the new requirements. Then, additional safety training was developed to support them."

"Following the investigation, the local standards set to prevent a similar incident were stricter than the OSHA standards," Barker said. "Anyone working above four feet now must have positive fall protection, such as tethering, or hand rails. This requirement has been adopted not just at Kennedy, but across the entire agency."

Knowledge sharing, Barker said, is critical to NASA's success and workers' safety.

### More online

The NASA Lessons Learned database system is the official, reviewed lessons learned from NASA programs and projects and contains about 1,800 entries. Public access to select entries in the database is available at <https://nen.nasa.gov/web/ll/public-nasa-ll-system>.

NASA Employees of the Month: November



NASA/Tony Gray

Employees for the month of November are, from left, Kenneth Nowak, Launch Integration Office; Julie Cairni, Safety and Mission Assurance; Anne Chrest, Center Operations; and Stephen Bulloch, Launch Vehicle Processing. Not pictured are Josiel Torres, Information Technology and Communications Services; Joseph Schuh, Engineering Directorate; Wesley Johnson, Engineering Directorate; Jose Nunez, International Space Station and Spacecraft Processing; Dustin Dyer, Launch Services Program; Christy Rivera, Constellation Project Office; and Gary "Mike" Felker, Procurement Office.

Looking up and ahead . . .

Targeted for Nov. 18	Launch/CCAFS: Delta IV Heavy, NROL-32; TBD
No Earlier Than Nov. 30	Launch/KSC: Discovery, STS-133; 4:02 a.m. EST
No Earlier Than Dec. 7	Launch/CCAFS: SpaceX Falcon 9, COTS-1;
Targeted for Jan. 22, 2011	Launch/CCAFS: Atlas V, SBIRS GEO-1; TBD
Targeted for February	Launch/CCAFS: Atlas V, GPS IIF-2; TBD
Feb. 23, 2011	Launch/VAFB: Taurus, Glory; 5:10 a.m. EST
Targeted for Feb. 27, 2011	Launch/KSC: Endeavour, STS-134; 3:35 p.m. EST
No Earlier Than April 14, 2011	Launch/CCAFS: SpaceX Falcon 9, Dragon C2; TBD
No Earlier Than June 6, 2011	Launch/CCAFS: SpaceX Falcon 9, Dragon C3; TBD
No Earlier Than June 9, 2011	Launch/VAFB: Delta II, Aquarius / SAC-D Satellite; TBD
Aug. 5, 2011	Launch/CCAFS: Atlas V, Juno; Launch Window 11:54 a.m. to 12:24 p.m. EDT
Aug. 15, 2011	Launch/ Kwajalein Atoll, Reagan Test Site: Pegasus, NuSTAR; TBD
Sept. 8, 2011	Launch/CCAFS: Delta II Heavy, GRAIL; 8:35:52 a.m. and 9:14:35 a.m. EDT
Oct. 18, 2011	Launch/VAFB: Delta II, NPP; TBD
No Earlier Than Nov. 25, 2011	Launch/CCAFS: Atlas V, Mars Science Laboratory; TBD

Habitat for Humanity, Kennedy women unite to build a home in Cocoa

The Women Build Project for Brevard County's Habitat for Humanity completed its fifth week of building a home with the help of women from Kennedy Space Center on Oct. 30. Center Deputy Director Janet Petro talked to the volunteers during lunch as part of the Women Build outreach and networking goals.

The Federally Employed Women (FEW) supported the team with breakfast and lunch. Petro not only grabbed a hammer and

More photos online

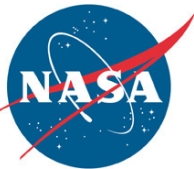
To follow the build and to see pictures of Kennedy's team, visit [www.facebook.com/pages/WOMEN-BUILD-Project-for-Brevard-County-Habitat-for-Humanity-October-2010/311934622272?v=wall](http://www.facebook.com/pages/WOMEN-BUILD-Project-for-Brevard-County-Habitat-for-Humanity-October-2010/311934622272?v=wall)

helped build the roof, she also is making sure the importance of community involvement is passed on by bringing her daughter, Hannah.



For NASA

Kennedy Space Center's Deputy Director Janet Petro, second from left, her daughter, Hannah, members of Federally Employed Women (FEW) and Kennedy workers join Brevard County's Habitat for Humanity to build a home for Roderick White on Oct. 30 in Cocoa, Fla.



John F. Kennedy Space Center

Spaceport News

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